APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,261	09/30/2002	Paul Cheng	60409.300902	5669

			EXAMINER
32112	7590	08/10/2004	ABEL JALIL, NEVEEN

INTELLECTUAL PROPERTY LAW OFFICE
1901 S. BASCOM AVENUE, SUITE 660
CAMPBELL, CA 95008

ART UNIT	PAPER NUMBER
2175	2

DATE MAILED: 08/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)	
Office Action Summary	10/065,261	CHENG ET AL.	
	Examiner	Art Unit	
	Neveen Abel-Jalil	2175	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-11* is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-11* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All   b) ☐ Some *   c) ☐ None of:
   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____.
   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Greene et al.

(U.S. Patent No. 6,434,662 B1).

As to claims 1, and 5, Greene et al. discloses a search engine, comprising:

a controller including a hash function able to receive an input search value and to create

there from at least one hash address which is smaller in size than said input search value (See

column 3, lines 4-29);

a hash pointer unit able to store a plurality of pointer values, wherein respective said

pointer values are addressed based on said hash addresses (See column 4, lines 15-24, also see

abstract);

a memory suitable for storing a database of search results, wherein respective said search

results are addressed based on said pointer values (See column 7, lines 4-46);

an address bus operationally connecting said controller to said hash pointer unit and able

to communicate said hash addresses from said controller to said hash pointer unit (See column 8,

lines 43-51);

a pointer bus operationally connecting said hash pointer unit to said memory and able to

communicate said pointer value from said hash pointer unit to said memory (See column 10,

lines 1-19, and see column 8, lines 53-64); and

a result bus operationally connecting said memory to said controller and able to

communicate said search result from said memory to said controller, thereby permitting the

search engine to function in a multi-way set-associative manner wherein the size of said memory

is not a function of the degree of multi-way set-associativity (See column 3, lines 30-53, also see

abstract).

As to claims 2, and 6, Greene et al. discloses wherein said pointer values are equal or

smaller in size than said hash address (See column 3, lines 56-67, and see column 4, lines 1-14).

As to claims 3, and 7, Greene et al. discloses wherein said search results each include a

stored search value and an associate value, thereby permitting said controller to compare

instances of said input search value with said stored search value to determine whether a hash

collision has occurred and when said associate value is trustworthy (See column 10, lines 20-41).

As to claims 4, and 8, Greene et al. discloses wherein said hash function generates a hash

value and said controller creates said hash address based on said hash value and an offset value

(See column 10, lines 46-67, and see column 9, lines 20-53).

As to claim 9, <u>Greene et al.</u> discloses a method for searching a database of search results, wherein the search results each include a stored search value, the method comprising the steps of:

(a) generating a hash value from an input search value, wherein said hash value is smaller in size than said input search value (See column 3, lines 4-27);

(b) creating a plurality of hash addresses based on said hash value and respective offset values (See column 6, lines 16-51);

(c) retrieving pointer values from a pre-stored plurality of said pointer values based on said hash addresses (See column 5, lines 9-42);

(d) retrieving instances of the search results from the database based on said pointer values (See column 5, lines 63-67); and

(e) comparing said input search value and said stored search values in said instances of the search results retrieved (See column 3, lines 1-27, also see column 7, lines 8-34) in said step (d) to determine whether a respective hash collision has occurred, wherein a presumably usable said instance of the search results is one wherein a hash collision has not occurred, thereby searching the database in a multi-way set-associative manner wherein the size of the database is not a function of the degree of multi-way set-associativity (See column 3, lines 56-67, and see column 4, lines 1-25).

As to claim 10, <u>Greene et al.</u> discloses wherein said pointer values are equal or smaller in size than said hash address (See column 6, lines 52-67).

As to claim 11, <u>Greene et al.</u> discloses wherein the search results each include a stored

search value and an associate value, and the method further comprising:

(f) selecting a usable said associate value, if any, as being that from said usable said

instance of the search results (See column 11, lines 38-67).

Conclusion

3.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Neveen Abel-Jalil whose telephone number is 703-305-8114.

The examiner can normally be reached on 8:30AM-5: 30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Dov Popovici can be reached on 703-305-3830. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Neveen Abel-Jalil
August 6, 2004

CHARLES RONES
PRIMARY EXAMINER